

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,234,953 B1  
DATED : May 22, 2001  
INVENTOR(S) : Alex W. Thomas et al.

Page 1 of 2

it is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page.

Item [56], **References Cited**, U.S. PATENT DOCUMENTS, add the following:

-- 3,678,337 7/1972 Grauvogel [ ] --.

FOREIGN PATENT DOCUMENTS, add the following:

-- GB 2,270,000 3/1994 Grace et al. [ ] --; and add the following:

-- OTHER PUBLICATIONS

Kirschvink and Walker, "Particle-Size Considerations for Magnetite-Based Magnetoreceptors," Contribution No. 4135 from *The Division of Geological and Planetary Sciences*, California Institute of Technology, pp. 243-256, 1985.

Kavalliers, et al., "Opioid Systems and Magnetic Field Effects in the Land Snail, *Cepaea Nemoralis*," *Biol. Bull.*, 180: 301-309, April, 1991.

Prato, et al., "Attenuation of Morphine-Induced Analgesia in Mice by Exposure to Magnetic Resonance Imaging: Separate Effects of the Static, Radiofrequency and Time-Varying Magnetic Fields," *Magnetic Resonance Imaging*, Vol. 5, pp. 9-14, 1987.

Betancur, et al., "Magnetic Field Effects on Stress-Induced Analgesia in Mice: Modulation by Light," *Neuroscience Letters* 182 (1994) 147-150.

Kavalliers, et al., "Opioid Systems and the Biological Effects of Magnetic Fields," *On The Nature of Electromagnetic Field Interactions with Biological Systems*, pp. 181-194, 1994.

Del Seppia, et al., "Exposure to Oscillating Magnetic Fields Influences Sensitivity to Electrical Stimuli. I. Experiments on Pigeons," *Bioelectromagnetics*, 16:290-294 (1995).

Papi, et al., "Exposure to Oscillating Magnetic Fields Influences Sensitivity to Electrical Stimuli. II. Experiments on Humans," *Bioelectromagnetics*, 16:295-300 (1995).

Papi et al., "Orientation-Disturbing Magnetic Treatment Affects the Pigeon Opioid System," *J. EXP BIOL.*, 166, 169-179 (1992).

Polk, "Dosimetry of Extremely Low Frequency Magnetic Fields," *Bioelectromagnetics Supplement*, 1:209-235 (1992).

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,234,953 B1  
DATED : May 22, 2001  
INVENTOR(S) : Alex W. Thomas et al.

Page 2 of 2

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Title page (cont'd).

Weaver et al., "The Response of Living Cells to Very Weak Electric Fields: The Thermal Noise Limit," *Science Reports*, Vol. 247, pp. 459-462, 26 January 1990.

Kavalliers, et al., "Brief Exposure to 60 HZ Magnetic Fields Improves Sexually Dimorphic Spatial Learning Performance in the Meadow Vole, *Microtus Pennsylvanicus*," *Journal of Comparative Physiology A*, 173: 241-248, 1993.

Kavalliers, et al., "Spatial Learning in Deer Mice: Sex Differences and the Effects of Endogenous Opioids and 60 HZ Magnetic Fields," *Journal of Comparative Physiology A*, 179:1-10, 1996.

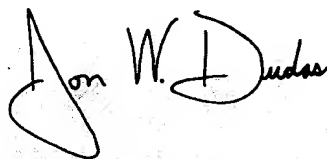
Prato, et al., "Behavioural Evidence that Magnetic Field Effects in the Land Snail, *Cepaea Nemoralis*, Might Not Depend on Magnetite or Induced Electric Currents," *Bioelectromagnetics*, 17:123-130 (1996).

Column 30.

Line 48, delete the word "issue" and insert -- "tissue" --.

Signed and Sealed this

First Day of November, 2005



JON W. DUDAS  
Director of the United States Patent and Trademark Office